

Amendments to the Claims:

The following listing of claims replaces all prior listing, and all prior versions, of claims in the application.

Listing of Claims:

1. (original) A cleaning solution for semiconductor substrates, which comprises an oxidizing agent, an acid and a fluorine compound, has a pH adjusted in a range of 3 to 10 by addition of a basic compound and has a concentration of water of 80% by weight or greater.

2. (original) A cleaning solution for semiconductor substrates, which comprises an oxidizing agent, an acid, a fluorine compound and a corrosion inhibitor, has a pH adjusted in a range of 3 to 10 by addition of a basic compound and has a concentration of water of 80% by weight or greater.

3. (currently amended) A cleaning solution according to ~~any one of Claims-Claim 1 and 2~~, wherein a ratio of an amount by weight of the acid to an amount by weight of the oxidizing agent is in a range of 0.1 to 1,000.

4. (currently amended) A cleaning solution according to ~~any one of Claims-Claim 1 to 3~~, wherein the oxidizing agent is hydrogen peroxide.

5. (currently amended) A cleaning solution according to ~~any one of Claims-Claim 1 to 3~~, wherein the oxidizing agent is nitric acid.

6. (currently amended) A cleaning solution according to ~~any one of Claims-Claim 1 to 5~~, wherein the acid is an inorganic acid.

7. (currently amended) A cleaning solution according to ~~any one of Claims 1 to Claim~~ 6, wherein the inorganic acid is at least one acid selected from a group consisting of boric acid, sulfamic acid, phosphoric acid and carbonic acid.

8. (currently amended) A cleaning solution according to ~~any one of Claims 1 to Claim~~ 6, wherein the inorganic acid is sulfuric acid.

9. (currently amended) A cleaning solution according to ~~any one of Claims Claim 1 to 5~~, wherein the acid is an organic acid.

10. (currently amended) A cleaning solution according to ~~any one of Claims 1 to 5 and Claim~~ 9, wherein the organic acid is at least one acid selected from a group consisting of oxalic acid, citric acid, propionic acid and acetic acid.

11. (currently amended) A cleaning solution according to ~~any one of Claims 1 and Claim~~ 10, wherein the fluorine compound is ammonium fluoride or tetramethylammonium fluoride.

12. (currently amended) A cleaning solution according to ~~any one of Claims Claim 1 to 11~~, wherein the basic compound is a strong base having no metal ions.

13. (currently amended) A cleaning solution according to ~~any one of Claims 1 to Claim~~ 12, wherein the strong base having no metal ions is tetramethylammonium hydroxide or trimethylhydroxyethylammonium hydroxide.

14. (currently amended) A cleaning solution according to ~~any one of Claims Claim 2 to 13~~, wherein the corrosion inhibitor is polyethyleneimine.

15. (currently amended) A cleaning solution according to ~~any one of Claims Claim 1 to 14~~, which further comprises a surfactant.

16. (original) A cleaning solution according to Claim 15, wherein the surfactant is an anionic surfactant.

17. (original) A cleaning solution according to Claim 16, wherein the anionic surfactant is a phosphoric ester of a polyoxyethylenealkyl ether or a phosphoric ester of a polyoxyethylenealkyl aryl ether.

18. (currently amended) A cleaning solution according to ~~any one of Claims Claim 1 to 17~~, wherein the adapted for cleaning semiconductor substrates having metal wiring which comprises copper alone or a laminate structure of copper and a barrier metal.

19. (currently amended) A process for cleaning semiconductor substrates having metal wiring, which comprises cleaning with a cleaning solution described in ~~any one of Claims Claim 1 to 18~~.

20. (new) A process according to Claim 19, wherein said metal wiring comprises copper alone or a laminate structure of copper and a barrier metal.

21. (new) A cleaning solution according to Claim 2, wherein a ratio of an amount by weight of the acid to an amount by weight of the oxidizing agent is in a range of 0.1 to 1,000.

22. (new) A cleaning solution according to Claim 2, wherein the oxidizing agent is hydrogen peroxide.

23. (new) A cleaning solution according to Claim 2, wherein the oxidizing agent is nitric acid.

24. (new) A cleaning solution according to Claim 2, wherein the acid is an inorganic acid.

25. (new) A cleaning solution according to Claim 24, wherein the inorganic acid is at least one acid selected from a group consisting of boric acid, sulfamic acid, phosphoric acid and carbonic acid.

26. (new) A cleaning solution according to Claim 24, wherein the inorganic acid is sulfuric acid.

27. (new) A cleaning solution according to Claim 2, wherein the acid is an organic acid.

28. (new) A cleaning solution according to Claim 27, wherein the organic acid is at least one acid selected from a group consisting of oxalic acid, citric acid, propionic acid and acetic acid.

29. (new) A cleaning solution according to Claim 28, wherein the fluorine compound is ammonium fluoride or tetramethylammonium fluoride.

30. (new) A cleaning solution according to Claim 2, wherein the

fluorine compound is ammonium fluoride or tetramethylammonium fluoride.

31. (new) A cleaning solution according to Claim 1, wherein the fluorine compound is ammonium fluoride or tetramethylammonium fluoride.

32. (new) A cleaning solution according to Claim 2, wherein the basic compound is a strong base having no metal ions.

33. (new) A cleaning solution according to Claim 32, wherein the strong base having no metal ions is tetramethylammonium hydroxide or trimethylhydroxyethylammonium hydroxide.

34. (new) A cleaning solution according to Claim 2, which further comprises a surfactant.

35. (new) A cleaning solution according to Claim 34, wherein the surfactant is an anionic surfactant.

36. (new) A cleaning solution according to Claim 35, wherein the anionic surfactant is a phosphoric ester of a polyoxyethylenealkyl ether or a phosphoric ester of a polyoxyethylenealkyl aryl ether.

37. (new) A cleaning solution according to Claim 2, adapted for cleaning semiconductor substrates having metal wiring which comprises copper alone or a laminate structure of copper and a barrier metal.

38. (new) A cleaning solution according to Claim 15, adapted for cleaning semiconductor substrates having metal wiring which comprises copper alone or a laminate structure of copper and a barrier metal.

39. (new) A process for cleaning semiconductor substrates having metal wiring, which comprises cleaning with a cleaning solution described in Claim 2 .

40. (new) A process for cleaning semiconductor substrates having metal wiring, which comprises cleaning with a cleaning solution described in Claim 15.